SYNTEX RESEARCH
DIVISION OF SYNTEX (USA) INC.
3401 HILLVIEW AVENUE
PALO ALTO, CALIF. 94304

ANALYTICAL RESEARCH

January 6, 1983

Mr. Arthur Spratlin
U.S. Environmental Protection Agency
Region VII
324 East Eleventh Street
Kansas City, MO 64106

Dear Mr. Spratlin:

On November 18, 1982 a report from the University of Nebraska-Lincoln covering the analysis of TCDD in fish obtained from the Spring River was forwarded to Mr. Scott Ritchey of your agency. This report did not include isomer specific analyses for predator and bottom feeder filets at two of the sites sampled because Dr. Gross had not yet completed these analyses. These results have now been obtained and were transmitted to you verbally on January 3, 1983.

Table 3 of the above mentioned report (Isomer Specific Analysis of Fish Filet by Capillary GC/HRMS) has been updated to incorporate these added results. A copy of the revised table is included for your use. To properly relate the results to their actual sampling locations please note the following: Site 2 refers to the location 0.27 miles downstream from the Verona plant; Site 4 refers to the location 11 miles downstream; Site 5 refers to the location 2 miles upstream; and Site 6 refers to the location 5 miles downstream from the plant.

The information supplied in this updated table completes the agreed upon expansion of analytical information on Spring River fish to be supplied by Syntex under the Consent Order of July 22, 1982, relating to fish sampling.

As we agreed at our meeting in Kansas City on December 20, 1982, the Missouri Department of Natural Resources will be preparing a proposed protocol for annual monitoring of fish from certain sections of the Spring River. I look forward to the opportunity of revising this proposal and discussing it with you.

Site: Syntex-Verona
ID # MOD007452154
Break: 3.3
Other: Syntex
1-26-83

Sincerely,

Lewis Throop

Lewis J. Throop
Director of Analytical Research

LJT:j
Attachment (1)

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Table 3: Isomer Specific Analysis of Fish Fillet by Capillary GC/HRMS

Sample ID	Total Concentration[a] of TCDD Detected (ppt)[d]	Number of Peaks Observed	Relative Retention Time of Peaks Observed[b]	Concentration of 2,3,7,8-TCDD (ppt)[c]
Bottom Feeders Site 2 (3)	150	2	1.000 1.0769	40
Bottom Feeders Site 2 (1)	40	1	1.000	40
Predators Site 2 (3)	30	2	1.000 1.0769	3
Bottom Feeders Site 4 (3)	11	2	1.000 1.0769	2.5
Predators Site 4 (3)	20	2	1.000 1.0769	2
Bottom Feeders Site 5 (1)	Not detected @ 5 ppt	--	--	
Predators Site 5 (1)	14	1	1.000	14
Bottom Feeders Site 6 (1)	15	1	1.000	15
Predators Site 6 (1)	15	1	1.000	15

a. The values obtained by packed column GC/HRMS are reported.

b. Relative Rentention Time--retention time relative to authentic 2,3,7,8-TCDD

c. The concentrations reported here are the values corresponding to the signal height of m/z 322 for 2,3,7,8-TCDD, expressed as a fraction of the total concentration of TCDD determined by packed column GC/HRMS.

d. Parts-per-trillion.

The number within ( ) indicates the batch number of sample extraction.

table3.unl

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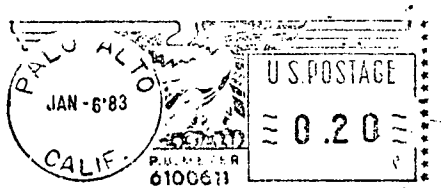

SYNTEX

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